

Air Quality Permit

Issued To: Omimex Canada, Ltd.
Bowdoin Compressor Station
65 East Broadway, Suite 401
Butte, MT 59701

Permit #2922-07
Application Complete: 10/07/05
Preliminary Determination Issued: 11/16/05
Department's Decision Issued: 12/02/05
Permit Final: 12/20/05
AFS#: 071-0003

An air quality permit, with conditions, is hereby granted to Omimex Canada, Ltd. (Omimex), pursuant to Sections 75-2-204 and 75-2-211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

Omimex owns and operates a natural gas compressor station, known as the Bowdoin Compressor Station, located in the SW¹/₄ of the SE¹/₄ of Section 35, Township 35 North, Range 31 East, in Phillips County, Montana. A complete list of the permitted equipment is contained in Section I.A. of the permit analysis.

B. Current Permit Action

On October 7, 2005, the Department of Environmental Quality (Department) received a complete permit application from Omimex to add a 1,050 hp High Compressor Ratio (HCR) natural gas fired rich-burn compressor engine with an NSCR catalyst to the existing compressor station. The permit will also be updated to use the current permit language and rule references used by the Department. Permit #2922-07 replaces Permit #2922-06.

Section II: Limitations and Conditions

A. Emission Limitations

1. Omimex shall not operate more than one natural gas compressor engine with a maximum rated design capacity equal to, or less than, 2,000-hp (as Unit C-113). The engine may be a rich-burn engine fitted with a Non-Selective Catalytic Reduction (NSCR) unit and an Air-to-Fuel Ratio (AFR) controller or a lean-burn engine retrofitted with an Oxidation Catalyst (OC). The emission limits for the engine shall be determined as follows (ARM 17.8.749 and ARM 17.8.752):

Emission Limit (pound per hour (lb/hr)) = Emission Factor (gram per break horsepower-hour (g/bhp-hr)) * maximum rated capacity of engine (hp) * 0.002205 pound per gram (lb/g)

2. The maximum rated design capacity of the engine (Unit C-113) shall not exceed 2,000-hp and the emission limits for the engine shall be determined by using the equation in Section II.A.1 in conjunction with the appropriate emission factors, as follows (ARM 17.8.752):

Rich-Burn Engine with NSCR Unit and AFR Controller

NO_x¹ 1.00 g/bhp-hr
CO 2.00 g/bhp-hr
VOC 1.00 g/bhp-hr

Lean-Burn Engine with OC

NO_x¹ 1.00 g/bhp-hr
CO 0.50 g/bhp-hr
VOC 1.00 g/bhp-hr

3. The speed for each of the 1085-hp Caterpillar compressor engines (Units C-110, C-111, and C-679) shall not exceed 1200 revolutions per minute (rpm) of continuous duty operation. Each of the 1085-hp Caterpillar compressor engines shall have a minimum stack height of 24 feet above ground level and the emissions from each engine shall not exceed the following (ARM 17.8.752):

NO_x¹ 4.78 lb/hr
CO 3.56 lb/hr
VOC 0.50 lb/hr

4. The 1050-horsepower (hp) Caterpillar G33516TA HCR rich-burn compressor engine (Unit C-114) shall be controlled with a non-selective catalytic reduction (NSCR) unit. The emission limits for the engine shall be determined as follows (ARM 17.8.752):

Emission Limit (pound per hour (lb/hr)) = Emission Factor (gram per break horsepower-hour (g/bhp-hr)) * maximum rated capacity of engine (hp) * 0.002205 pound per gram (lb/g)

5. The maximum rated design capacity of the engine (Unit C-114) shall be determined by using the equation in Section II.A.4 in conjunction with the appropriate emission factors, as follows (ARM 17.8.752):

Rich-Burn Engine with NSCR Unit and AFR Controller

NO_x² 1.00 g/bhp-hr
CO 1.00 g/bhp-hr
VOC 0.50 g/bhp-hr

6. Omimex shall direct all dehydrator still column vent emissions to an underground storage tank. The vent line exit from the tank shall be a minimum of 14 feet above ground level (ARM 17.8.752).

¹ NO_x reported as NO₂

² NO_x reported as NO₂

7. The 126-hp Ford engine driving an 85-kilowatt (kW) generator (Unit PK-70) shall be used only on an emergency basis when commercial, purchased power is unavailable. The operating hours for this unit shall not exceed 2,000 hours per year (hr/yr). The engine shall have a minimum stack height of 24 feet above ground level and emissions shall not exceed the following (ARM 17.8.752):

NO _x ¹	3.88 lb/hr
CO	0.21 lb/hr
VOC	0.04 lb/hr
8. Omimex shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.304).
9. Omimex shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (PM) (ARM 17.8.308).
10. Omimex shall treat all unpaved portions of the access roads, parking lots, and the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.9. (ARM 17.8.749).
11. Omimex shall operate all equipment to provide the maximum air pollution control for which it was designed (ARM 17.8.752).

B. Testing Requirements

1. Unit C-113 shall be initially tested for nitrogen oxides (NO_x) and carbon monoxide (CO), concurrently, to demonstrate compliance with the emission limitations contained in Section II.A.1 and Section II.A.2. The initial source testing shall be conducted within 180 days of the initial start up date of the compressor engine. After the initial source test, additional testing for unit C-113 shall continue on an every 4-year basis, or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).
2. Units C-110, C-111, and C-679 shall be initially tested for NO_x and CO, concurrently, to demonstrate compliance with the emission limitations contained in Section II.A.3. The initial source testing shall be conducted within 180 days of the initial start up date of the compressor engine. After the initial source test, additional testing for units C-110, C-111, and C-679 shall continue on an every 4-year basis, or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).
3. Unit C-114 shall be initially tested for NO_x and CO, concurrently, to demonstrate compliance with the emission limits in Section II.A.4 and II.A.5. The initial source testing shall be conducted within 180 days of the initial start up date of the compressor engine. After the initial source test, additional testing for unit C-114 shall continue on an every 4-year basis, or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).

4. During each test, Omimex shall monitor the intake manifold temperature and pressure, the exhaust temperature, manifold pressure, engine rpm, and all parameters necessary to calculate horsepower. This information shall be submitted to the Department along with the Source Test Report (ARM 17.8.105).
5. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
6. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. Omimex shall supply the Department with annual production information for all emission points, as required by the Department, in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in units as required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505). Omimex shall submit the following information annually to the Department by March 1st of each year; the information may be submitted along with the annual emission inventory (ARM 17.8.505).

- a. Hours of operation of Unit PK-70, and
 - b. Summary report listing the reasons why Unit PK-70 was operating.
2. Omimex shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 10 days prior to start-up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
 3. All records compiled in accordance with this permit must be maintained by Omimex as a permanent business record for at least five years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

D. Notification

Omimex shall provide the Department with written notification of the following information within the specified time periods (ARM 17.8.749):

1. Commencement of construction of Unit C-113 and C-114, within 30 days after commencement of construction.
2. The actual start-up date of Unit C-113 and C-114, within 15 days after the actual start-up date of the engine.
3. A change in specifications of the Unit C-113 engine (maximum rated design capacity, rich burn or lean burn, and two stroke or four stroke) to be installed according to Section II.A.1. within 15 days after the actual startup date of Unit C-113.

Section III: General Conditions

- A. Inspection - Omimex shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver - The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Omimex fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving Omimex of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740 *et seq.* (ARM 17.8.756).
- D. Enforcement - Violations of limitations, conditions, and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement action as specified in Section 75-2-401 *et seq.*, MCA.
- E. Appeals - Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection - As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.

- G. Permit Fee - Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Omimex may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement – Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).

Permit Analysis
Omimex Canada, Ltd.
Permit #2922-07

I. Introduction/Project Description

A. Permitted Equipment

Omimex Canada, Ltd. (Omimex), owns and operates a natural gas compressor station located in the SW¼ of the SE¼ of Section 35, Township 35 North, Range 31 East, in Phillips County, Montana. The facility is known as the Bowdoin Compressor Station. The Omimex facility includes, but is not limited to, the following equipment:

<u>UNIT ID</u>	<u>UNIT DESCRIPTION</u>
C-110	1085-horsepower (hp) Caterpillar G3516TA LE compressor engine;
C-111	1085-hp Caterpillar G3516TA LE compressor engine;
C-679	1085-hp Caterpillar G3516TA LE compressor engine;
C-113	Up to a 2,000-hp compressor engine;
C-114	1050-horsepower (hp) Caterpillar G33516TA High Compression Ratio (HCR) compressor engine;
PK-100	12.5-million standard cubic feet per day (MMScfd) triethylene glycol (TEG) dehydration unit with a 350,000-British thermal units per hour (Btu/hr) glycol reboiler and a still vent;
PK-101	12.5-MMScfd TEG dehydration unit with a 350,000-Btu/hr glycol reboiler and a still vent;
PK-102	12.5-MMScfd TEG dehydration unit with a 350,000-Btu/hr glycol reboiler and a still vent;
PK-60	350,000-Btu/hr space heater boiler; and
PK-70	126-hp Ford engine driving an 85-kilowatt (kW) generator (to be used for emergency backup). Miscellaneous Volatile Organic Compounds (VOC) emissions from the methanol injection system and storage tank, emergency vent stack/compressor blowdowns, and component leaks.

B. Source Description

Omimex compresses and dehydrates natural gas delivered to the station from gas wells in the area. Compressed and dehydrated gas is delivered to a pipeline for redelivery to Northern Border Pipeline at a point near Monchy, Saskatchewan, Canada.

Omimex's Bowdoin Compressor Station is located in the SW¼ of the SE¼ of Section 35, Township 35 North, Range 31 East, in Phillips County, Montana. The station site is located approximately 1¼ miles south of the town of Whitewater, Montana. The total area is approximately eight acres. The site is flat, and access to the site is from the north. The site is fenced on all sides with a 6-foot chain-link fence and three strands of barbed wire.

C. Permit History

On June 16, 1996, North American Resources Company (NARCO) was issued **Permit #2922-00** for the construction and operation of a natural gas compressor station and associated equipment. The emitting units permitted were two 1085-hp Caterpillar G3516TA LE compressor engines (Unit C-110 and C-111), one 1665-hp Caterpillar

G3606TA LE compressor engine (Unit C-679), two 12.5-MMScfd TEG dehydration units each with a 350,000-Btu/hr glycol reboiler and a still vent (Unit PK-100 and PK-101), one 350,000-Btu/hr space heater boiler (Unit PK-70), and one 126-hp Caterpillar G3306 NA engine driving an 85-kW generator (Unit PK-60) (to be used for emergency backup). Miscellaneous VOC emissions from the methanol storage tank, emergency vent stack/compressor blowdowns, and component leaks were also considered.

On July 9, 1998, NARCO requested an alteration to Permit #2922-00. This permit action consisted of removing the 1665-hp Caterpillar G3606TA LE compressor engine and replacing it with a third 1085-hp Caterpillar G3516TA LE compressor engine. Also, the rule references were updated. **Permit #2922-01** replaced Permit #2922-00 on September 13, 1998.

In 1999, the U.S. Environmental Protection Agency (EPA) informed the Department of Environmental Quality (Department) that any condition in a Montana Air Quality Permit would be considered a federally enforceable condition. However, there are certain state rules that were never intended to be federally enforceable. The Department notified all facilities holding Montana Air Quality Permits that they could request deletion of those conditions based on the Administrative Rules of Montana (ARM) 17.8.717 and 17.8.315. Removing either of these conditions did not relieve the facility from complying with the rule upon which the permit condition was based; removal only ensured that enforcement of the condition remained solely with the Department. This permit action removed the condition, based on ARM 17.8.717, from the permit. Furthermore, the rule references and permit format were updated and the testing requirements contained in Sections II.B.3. and II.B.4. in Permit #2922-01 were removed because NARCO had demonstrated compliance with the natural gas sample analysis requirement. **Permit #2922-02** replaced Permit #2922-01 on December 7, 2000.

On January 22, 2002, the Department received a notice of corporate merger and name change from PanCanadian Energy Resources, Inc. (PanCanadian). The letter notified the Department that Montana Power Gas Company, Xeno, Inc., and Entech Gas Ventures, Inc., merged into NARCO as of January 1, 2002. The letter also stated that at the same time, NARCO changed its corporate name to PanCanadian. In addition, on April 18, 2002, the Department received a letter from PanCanadian that requested a name change from PanCanadian to EnCana Energy Resources, Inc. (EnCana). This permit action transferred the permit from NARCO to EnCana. **Permit #2922-03** replaced Permit #2922-02 on August 7, 2002.

On July 7, 2003, the Department received a Montana Air Quality Permit Application for a modification to Permit #2922-03. EnCana requested in the application that the Department modify Permit #2922-03 to include up to a 2,000-hp natural gas compressor engine and a 350,000-Btu/hr TEG dehydration unit. The permit action modified the permit to include the new equipment and updated the mailing address to reflect the current mailing address, as stated in the permit application. In addition, the name on the permit was changed to incorporate a name change from EnCana to EnCana Gathering Services (USA), Inc. (EnCana Gathering), as requested by EnCana on June 5, 2003. Also, the permit was updated to reflect current permit language and rule references used by the Department. **Permit #2922-04** replaced Permit #2922-03.

On October 14, 2003, the Department received a letter from EnCana requesting the Department change the engine unit number, C-112 for the 1085-hp Caterpillar G3516TA LE compressor engine and change the make listed for the 126-hp generator (Unit PK-70) because it was misidentified as a Caterpillar. This permitting action changed the engine

number C-112 to C-679, identified Unit PK-70 as a Ford not a Caterpillar, and updated the permit to reflect current permit language and rule references used by the Department. **Permit #2922-05** replaced Permit #2922-04.

On March 5, 2004, the Department received a letter from Omimex requesting the Department change the corporate name on Permit #2922-05 from EnCana Gathering to Omimex. This permitting action changed the corporate name and updated the permit to reflect current permit language and rule references used by the Department. **Permit #2922-06** replaced Permit #2922-05.

D. Current Permit Action

On October 7, 2005, the Department received a complete permit application from Omimex to add a 1,050 hp HCR natural gas fired rich burn compressor engine with an NSCR catalyst to the existing compressor station. The permit will also be updated to use the current permit language and rule references used by the Department. Permit **#2922-07** replaces Permit #2922-06.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the ARMs and are available, upon request, from the Department. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 - General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Omimex shall comply with all requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than four hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 - Ambient Air Quality, including, but not limited to the following:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

Omimex must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 - Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged to an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over six consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate. (2) Under this rule, Omimex shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (PM).
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere PM caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere PM in excess of the amount set forth in this rule.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. (4) Commencing July 1, 1971, no person shall burn liquid or solid fuels containing sulfur in excess of one pound of sulfur per million Btu fired. (5) Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions. Omimex will burn pipeline-quality natural gas in its fuel burning equipment, which will meet this limitation.
6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank-truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.
7. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR 60.

40 CFR 60, Subpart KKK Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Owners or operators of onshore natural gas processing plants, as defined and applied in 40 CFR Part 60, shall comply with standards and provisions of 40 CFR Part 60, Subpart KKK. This subpart does not apply to the Omimex facility because the facility does not meet the definition of a natural gas processing plant as defined in 40 CFR Part 60, Subpart KKK.

8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The owner or operator of any affected source, as defined and applied in 40 CFR Part 63, shall comply with the applicable subparts of 40 CFR Part 63.

40 CFR 63, Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities. Owners or operators of oil and natural gas production facilities, as defined and applied in 40 CFR Part 63, shall comply with the applicable provisions of 40 CFR Part 63, Subpart HH. In order for a natural gas production facility to be subject to 40 CFR Part 63, Subpart HH requirements, certain criteria must be met. First, the facility must be a major source of Hazardous Air Pollutants (HAP) as determined according to paragraphs (a)(1)(i) through (a)(1)(iii) of 40 CFR 63, Subpart HH. Second, a facility that is determined to be major for HAPs must also either process, upgrade, or store hydrocarbon liquids prior to the point of custody transfer, or process, upgrade, or store natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. Third, the facility must also contain an affected source as specified in paragraphs (b)(1) through (b)(4) of 40 CFR Part 63, Subpart HH. Finally, if the first three criteria are met, and the exemptions contained in paragraphs (e)(1) and (e)(2) of 40 CFR Part 63, Subpart HH do not apply, the facility is subject to the

applicable provisions of 40 CFR Part 63, Subpart HH. Because the facility is not a major source of HAPs, Omimex is not subject to the provisions of 40 CFR Part 63, Subpart HH.

40 CFR 63, Subpart HHH National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. Owners or operators of natural gas transmission or storage facilities, as defined and applied in 40 CFR Part 63, shall comply with the standards and provisions of 40 CFR Part 63, Subpart HHH. In order for a natural gas transmission and storage facility to be subject to 40 CFR Part 63, Subpart HHH requirements, certain criteria must be met. First, the facility must transport or store natural gas prior to the gas entering the pipeline to a local distribution company or to a final end user if there is no local distribution company. In addition, the facility must be a major source of HAPs as determined using the maximum natural gas throughput as calculated in either paragraphs (a)(1) and (a)(2) or paragraphs (a)(2) and (a)(3) of 40 CFR Part 63, Subpart HHH. Third, a facility must contain an affected source (glycol dehydration unit) as defined in paragraph (b) of 40 CFR Part 63, Subpart HHH. Finally, if the first three criteria are met, and the exemptions contained in paragraph (f) of 40 CFR Part 63, Subpart HHH, do not apply, the facility is subject to the applicable provisions of 40 CFR Part 63, Subpart HHH. Because the facility is not a major source of HAPs, Omimex is not subject to the provisions of 40 CFR 63, Subpart HHH.

- D. ARM 17.8, Subchapter 4 – Stack Height and Dispersion Techniques, including, but not limited to:
1. ARM 17.8.401 Definitions. This rule includes a list of definitions used in this chapter, unless indicated otherwise in a specific subchapter.
 2. ARM 17.8.402 Requirements. Omimex must demonstrate compliance with the ambient air quality standards with a stack height that does not exceed Good Engineering Practices (GEP). The stack height for Omimex is below the allowable 65-meter GEP stack height.
- E. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:
1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Omimex submitted the appropriate permit application fee for the current permit action.
 2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. This air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation

fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 - Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter, or use any air contaminant sources that have the Potential to Emit (PTE) greater than 25 tons per year of any pollutant. Omimex has a PTE greater than 25 tons per year of nitrogen oxides (NO_x), carbon monoxide (CO), and VOC; therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit Program.
4. ARM 17.8.745 Montana Air Quality Permits—Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. Omimex submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Omimex submitted an affidavit of publication of public notice for the October 5, 2005, issue of the *Great Falls Tribune Company*, a newspaper of general circulation in the Town of Great Falls in Phillips County, as proof of compliance with the public notice requirements.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
 9. ARM 17.8.756 Compliance with Other Statutes and Rules. This rule states that nothing in the permit shall be construed as relieving Omimex of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
 10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement (EIS).
 11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than one year after the permit is issued.
 12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
 13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
 14. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.
- F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:
1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
 2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any

major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source since the facility is not a listed source and the facility's PTE is below than 250 tons per year of any air pollutant (excluding fugitive emissions).

- G. ARM 17.8, Subchapter 12 - Operating Permit Program Applicability, including, but not limited to:
1. ARM 17.8.1201 Definitions. (23) A Major Source under Section 7412 of the FCAA is defined as any stationary source having:
 - a. PTE > 100 tons/year of any pollutant;
 - b. PTE > 10 tons/year of any one HAP, PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tons/year of Particulate Matter with an aerodynamic diameter of 10 microns or less (PM₁₀) in a serious PM₁₀ nonattainment area.
 2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #2922-07 for Omimex, the following conclusions were made:
 - a. The facility's PTE is less than 100 tons/year for any pollutant.
 - b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. The facility is not subject to any current NSPS.
 - e. This facility is not subject to any current NESHAP standards.
 - f. The source is not a Title IV affected source, nor a solid waste combustion unit.
 - g. The source is not an EPA designated Title V source.

Based on these facts, the Department determined that Omimex is a minor source of emissions as defined under Title V.

III. BACT Determination

A BACT determination is required for each new or altered source. Omimex shall install on the new or altered source the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized.

A BACT analysis was submitted by Omimex in Permit Application #2922-07, addressing some

available methods of controlling emissions from the proposed 1050-hp rich-burn compressor engine (C-114). The Department reviewed these methods, as well as previous BACT determinations in order to make the following BACT determinations.

A. Compressor Engines

1. NO_x and CO BACT

As part of the NO_x and CO BACT analyses, the following control technologies were reviewed:

- Lean-burn engine with a catalytic oxidation unit and an air-to-fuel ratio (AFR) controller;
- Lean-burn engine with a catalytic oxidation unit;
- Lean-burn engine with an NSCR unit and AFR controller;
- Lean-burn engine with an NSCR unit;
- Lean-burn engine with an SCR unit and AFR controller;
- Lean-burn engine with an SCR unit;
- Lean-burn engine with an AFR controller;
- Lean-burn engine with no additional controls;
- Rich-burn engine with an NSCR unit and an AFR controller;
- Rich-burn engine with an NSCR unit;
- Rich-burn engine with an SCR and an AFR controller;
- Rich-burn engine with an SCR;
- Rich-burn engine with a catalytic oxidation unit and an AFR controller;
- Rich-burn engine with a catalytic oxidation unit;
- Rich-burn engine with an AFR controller; and
- Rich-burn engine with no additional controls.

An NSCR unit applied to a lean-burn engine or lean-burn retrofit engine is technically infeasible because the NSCR unit needs a rich fuel-to-air ratio to operate effectively. Adverse environmental impacts could occur with an SCR unit operating on lean-burn engines at variable loads as required by a typical compressor engine. SCR units are typically installed on process units that have a constant or low variability in load fluctuation. When engine load changes, excess ammonia (ammonia slip) may pass through the system and out the stack or not enough ammonia will be injected. SCR units are technically infeasible because of the potential adverse environmental impacts from the typical load fluctuations that are required for compressor engines. SCR units have not been installed on lean-burn compressor engines in Montana.

SCR applied to rich-burn engines is technically infeasible because the oxygen concentration from rich-burn engines is not high enough for an SCR to operate properly. Catalytic oxidation applied to a rich-burn is technically infeasible because the oxygen concentration from a rich-burn engine is not high enough for a catalytic oxidizer to operate properly.

Based on past Department determinations rich-burn natural gas compressor engines controlled with non-selective catalytic reduction (NSCR) and an air-to-fuel ratio (AFR) controller meeting emission limits of 1.0 gram per brake horsepower-hour (g/bhp-hr) NO_x and 2.0 g/bhp-hr CO were considered BACT. NSCR and AFR control is considered the most technically practicable and economically feasible control of NO_x and CO from rich-burn compressor engines. Omimex has proposed to utilize rich-burn engines with NSCR and AFR control.

As proposed by Omimex, the Department determined that a NSCR unit and an AFR controller constitutes BACT for the reduction of NO_x and CO emissions resulting from the operation of the rich-burn natural gas compressor engine. NSCR/AFR control typically constitutes BACT for rich-burn natural gas compressor engines. NSCR/AFR control effectively reduces NO_x and CO emissions and represents a technically, economically, and environmentally feasible option for the control of NO_x and CO resulting from internal combustion engines such as the one proposed for the current permit action. Further, it has been demonstrated that these technologies, operated together, are capable of achieving the g/bhp-hr BACT emission limits established for the proposed compressor engine. The g/bhp-hr limits established as BACT include 1.0 g/bhp-hr for NO_x and 1.0 g/bhp-hr for CO.

2. VOC BACT

The Department is not aware of any BACT determinations that have required controls for VOC emissions from natural gas fired compressor engines. Omimex proposed the use of an NSCR unit and an AFR controller to meet a lb/hr limit equivalent to 0.5 g/bhp-hr. However, the Department does not consider the NSCR unit and the AFR controller to be BACT for VOC because the cost per ton of VOC reduced would be above industry norm. The Department determined that no additional controls and burning pipeline quality natural gas to meet an emission limit of 0.5 g/bhp-hr constitutes BACT for the proposed compressor engine.

3. PM₁₀ and SO₂ BACT

The Department is not aware of any BACT determinations that have required controls for PM₁₀ or sulfur dioxide (SO₂) emissions from natural gas fired compressor engines. Omimex proposed no additional controls and burning pipeline quality natural gas as BACT for PM₁₀ and SO₂ emissions from the proposed compressor engine. Due to the relatively small amount of PM₁₀ and SO₂ emissions from the proposed engine, any add-on controls would be cost prohibitive. Therefore, the Department determined that no additional controls and burning pipeline quality natural gas would constitute BACT for PM₁₀ and SO₂ emissions from the proposed compressor engine.

IV. Emission Inventory

Source	PM ₁₀	Tons/Year			
		NO _x	VOC	CO	SO _x
1085-hp Caterpillar G3516TA LE (C-110)	0.36	20.96	2.20	15.61	0.02
1085-hp Caterpillar G3516TA LE (C-111)	0.36	20.96	2.20	15.61	0.02
1085-hp Caterpillar G3516TA LE (C-679)	0.36	20.96	2.20	15.61	0.02
Compressor Engine ≤ 2,000-hp (C-113)	0.30	19.32	19.32	38.63	0.02
1050-hp Caterpillar G33516TA HCR (C-114)	0.33	10.14	5.07	10.14	0.02
TEG Regenerator Vent (PK-100)	0.00	0.00	0.95	0.00	0.00
TEG Regenerator Vent (PK-101)	0.00	0.00	0.95	0.00	0.00
TEG Regenerator Vent (PK-102)	0.00	0.00	0.95	0.00	0.00
Dehydrator Reboiler (PK-100)	0.01	0.17	0.01	0.07	0.00
Dehydrator Reboiler (PK-101)	0.01	0.17	0.01	0.07	0.00
Dehydrator Reboiler (PK-102)	0.01	0.17	0.01	0.07	0.00
Space Heating Boiler (PK-60)	0.01	0.17	0.01	0.07	0.00
Emergency Electrical Generator (PK-70)	0.28	3.88	0.04	0.21	0.26
Fugitive VOC Sources			negl.		
Total	2.03	96.90	33.92	96.09	0.36

1085-hp Caterpillar G3516TA LE (C-110)

Brake Horsepower: 1085 hp @ 1200 rpm
Hours of operation: 8760 hr/yr
Fuel Input = 7700 BTU/bhp-hr * 1085 hp / 1E06 = 8.35 MMBtu/hr

PM₁₀ Emissions

Emission Factor: 0.00991 lb/MMBtu (AP-42, Table 3.2-1, 7/00)
Fuel Consumption: 8.35 MMBtu/hr (Maximum Design)
Calculations: 0.00991 lb/MMBtu * 8.35 MMBtu/hr = 0.083 lb/hr
0.083 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.36 ton/yr

NO_x Emissions

Emission factor: 2.00 gram/bhp-hr (BACT Determination)
Calculations: 2.00 gram/bhp-hr * 1085 hp * 0.002205 lb/gram = 4.78 lb/hr
4.78 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 20.96 ton/yr

VOC Emissions

Emission factor: 0.21 gram/bhp-hr (BACT Determination)
Calculations: 0.21 gram/bhp-hr * 1085 hp * 0.002205 lb/gram = 0.50 lb/hr
0.50 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 2.20 ton/yr

CO Emissions

Emission factor: 1.49 gram/bhp-hr (BACT Determination)
Calculations: 1.49 gram/bhp-hr * 1085 hp * 0.002205 lb/gram = 3.56 lb/hr
3.56 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 15.61 ton/yr

SO_x Emissions

Emission Factor: 0.000588 lb/MMBtu (AP-42, Table 3.2-1, 7/00)
Fuel Consumption: 8.35 MMBtu/hr (Maximum Design)
Calculations: 0.000588 lb/MMBtu * 8.35 MMBtu/hr = 0.005 lb/hr
0.005 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.02 ton/yr

1085-hp Caterpillar G3516TA LE (C-111)

Brake Horsepower: 1085 hp @ 1200 rpm
Hours of operation: 8760 hr/yr
Fuel Input = 7700 BTU/bhp-hr * 1085 hp / 1E06 = 8.35 MMBtu/hr

PM₁₀ Emissions

Emission Factor: 0.00991 lb/MMBtu (AP-42, Table 3.2-1, 7/00)
Fuel Consumption: 8.35 MMBtu/hr (Maximum Design)
Calculations: 0.00991 lb/MMBtu * 8.35 MMBtu/hr = 0.083 lb/hr
0.083 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.36 ton/yr

NO_x Emissions

Emission factor: 2.00 gram/bhp-hr (BACT Determination)
Calculations: 2.00 gram/bhp-hr * 1085 hp * 0.002205 lb/gram = 4.78 lb/hr
4.78 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 20.96 ton/yr

VOC Emissions

Emission factor: 0.21 gram/bhp-hr (BACT Determination)
Calculations: 0.21 gram/bhp-hr * 1085 hp * 0.002205 lb/gram = 0.50 lb/hr
0.50 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 2.20 ton/yr

CO Emissions

Emission factor: 1.49 gram/bhp-hr (BACT Determination)
Calculations: 1.49 gram/bhp-hr * 1085 hp * 0.002205 lb/gram = 3.56 lb/hr
3.56 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 15.61 ton/yr

SO_x Emissions

Emission Factor: 0.000588 lb/MMBtu (AP-42, Table 3.2-1, 7/00)
 Fuel Consumption: 8.35 MMBtu/hr (Maximum Design)
 Calculations: $0.000588 \text{ lb/MMBtu} * 8.35 \text{ MMBtu/hr} = 0.005 \text{ lb/hr}$
 $0.005 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.02 \text{ ton/yr}$

1085-hp Caterpillar G3516TA LE (C-679)

Brake Horsepower: 1085 hp @ 1200 rpm
 Hours of operation: 8760 hr/yr
 Fuel Input = 7700 BTU/bhp-hr * 1085 hp / 1E06 = 8.35 MMBtu/hr

PM₁₀ Emissions

Emission Factor: 0.00991 lb/MMBtu (AP-42, Table 3.2-1, 7/00)
 Fuel Consumption: 8.35 MMBtu/hr (Maximum Design)
 Calculations: $0.00991 \text{ lb/MMBtu} * 8.35 \text{ MMBtu/hr} = 0.083 \text{ lb/hr}$
 $0.083 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.36 \text{ ton/yr}$

NO_x Emissions

Emission factor: 2.00 gram/bhp-hr (BACT Determination)
 Calculations: $2.00 \text{ gram/bhp-hr} * 1085 \text{ hp} * 0.002205 \text{ lb/gram} = 4.78 \text{ lb/hr}$
 $4.78 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 20.96 \text{ ton/yr}$

VOC Emissions

Emission factor: 0.21 gram/bhp-hr (BACT Determination)
 Calculations: $0.21 \text{ gram/bhp-hr} * 1085 \text{ hp} * 0.002205 \text{ lb/gram} = 0.50 \text{ lb/hr}$
 $0.50 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 2.20 \text{ ton/yr}$

CO Emissions

Emission factor: 1.49 gram/bhp-hr (BACT Determination)
 Calculations: $1.49 \text{ gram/bhp-hr} * 1085 \text{ hp} * 0.002205 \text{ lb/gram} = 3.56 \text{ lb/hr}$
 $3.56 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 15.61 \text{ ton/yr}$

SO_x Emissions

Emission Factor: 0.000588 lb/MMBtu (AP-42, Table 3.2-1, 7/00)
 Fuel Consumption: 8.35 MMBtu/hr (Maximum Design)
 Calculations: $0.000588 \text{ lb/MMBtu} * 8.35 \text{ MMBtu/hr} = 0.005 \text{ lb/hr}$
 $0.005 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.02 \text{ ton/yr}$

Compressor Engine ≤ 2,000-hp (C-113)

Brake Horsepower: 2,000 bhp
 Hours of operation: 8760 hr/yr

PM₁₀ Emissions

Emission Factor: 0.00095 lb/MMBtu (AP-42, Table 3.2-3, 7/00)
 Fuel Consumption: 7.28 MMBtu/hr (Permit Application #2922-06)
 Calculations: $0.00095 \text{ lb/MMBtu} * 7.28 \text{ MMBtu/hr} = 0.0069 \text{ lb/hr}$
 $0.0069 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.30 \text{ ton/yr}$

NO_x Emissions

Emission factor: 1.00 gram/bhp-hr (BACT Determination)
 Calculations: $1.00 \text{ gram/bhp-hr} * 2,000 \text{ hp} * 0.002205 \text{ lb/gram} = 4.410 \text{ lb/hr}$
 $4.410 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 19.32 \text{ ton/yr}$

VOC Emissions

Emission factor: 1.00 gram/bhp-hr (BACT Determination)
 Calculations: $1.00 \text{ gram/bhp-hr} * 2,000 \text{ hp} * 0.002205 \text{ lb/gram} = 4.410 \text{ lb/hr}$
 $4.410 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 19.32 \text{ ton/yr}$

CO Emissions

Emission factor: 2.0 gram/bhp-hr (BACT Determination)
 Calculations: $2.0 \text{ gram/bhp-hr} * 2,000 \text{ hp} * 0.002205 \text{ lb/gram} = 8.820 \text{ lb/hr}$
 $8.820 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 38.63 \text{ ton/yr}$

SO_x Emissions

Emission Factor: 0.000588 lb/MMBtu (AP-42, Table 3.2-3, 7/00)
Fuel Consumption: 7.28 MMBtu/hr
Calculations: $7.28 \text{ MMBtu/hr} * 0.000588 \text{ lb/MMBtu} = 0.004 \text{ lb/hr}$
 $0.004 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.02 \text{ ton/yr}$

1,050-hp Caterpillar G33516TA HCR (C-114)

Brake Horsepower: 1,050 bhp
Hours of operation: 8760 hr/yr

PM₁₀ Emissions

Emission Factor: 0.0095 lb/MMBtu (AP-42, Table 3.2-3, 7/00)
Fuel Consumption: 7.82 MMBtu/hr (Permit Application #2922-07)
Calculations: $7.82 \text{ MMBtu/hr} * 0.0095 \text{ lb/MMBtu} = 0.074 \text{ lb/hr}$
 $0.074 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.33 \text{ ton/yr}$

NO_x Emissions

Emission factor: 1.00 gram/bhp-hr (BACT Determination)
Calculations: $1.00 \text{ gram/bhp-hr} * 1,050 \text{ hp} * 0.002205 \text{ lb/gram} = 2.315 \text{ lb/hr}$
 $2.315 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 10.14 \text{ ton/yr}$

VOC Emissions

Emission factor: 0.50 gram/bhp-hr (BACT Determination)
Calculations: $0.50 \text{ gram/bhp-hr} * 1,050 \text{ hp} * 0.002205 \text{ lb/gram} = 1.158 \text{ lb/hr}$
 $1.158 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 5.07 \text{ ton/yr}$

CO Emissions

Emission factor: 1.00 gram/bhp-hr (BACT Determination)
Calculations: $1.00 \text{ gram/bhp-hr} * 1,050 \text{ hp} * 0.002205 \text{ lb/gram} = 2.315 \text{ lb/hr}$
 $2.315 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 10.14 \text{ ton/yr}$

SO_x Emissions

Emission Factor: 0.000588 lb/MMBtu (AP-42, Table 3.2-3, 7/00)
Fuel Consumption: 7.82 MMBtu/hr
Calculations: $7.82 \text{ MMBtu/hr} * 0.000588 \text{ lb/MMBtu} = 0.005 \text{ lb/hr}$
 $0.005 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.02 \text{ ton/yr}$

TEG Regenerator Vent (PK-100)

The following emission summary has been estimated using the GRI-GLYCalc program.
For the detailed input parameters refer to the Permit Application.

Regenerator Vent

Glycol Type: TEG
Annual Hours of Operation: 8760
Dry Gas Flow Rate: 12.00 MMScf/day (maximum)
Control Device: Underground storage tank
Control Efficiency: 30%
Flash Separator: N/A
Stripping Gas: 42,000 Scf/day Dry Product Gas

Uncontrolled Regenerator Emissions lb/hr ton/yr

Total VOC Emissions	0.31	1.35
Total HAP Emissions	0.24	1.05

Controlled Regenerator Emissions lb/hr ton/yr

Total VOC Emissions	0.22	0.95
Total HAP Emissions	0.17	0.74

TEG Regenerator Vent (PK-101)

The following emission summary has been estimated using the GRI-GLYCalc program.
For the detailed input parameters refer to the Permit Application.

Regenerator Vent

Glycol Type: TEG
Annual Hours of Operation: 8760
Dry Gas Flow Rate: 12.00 MMScf/day (maximum)
Control Device: Underground storage tank
Control Efficiency: 30%
Flash Separator: N/A
Stripping Gas: 42,000 Scf/day Dry Product Gas

Uncontrolled Regenerator Emissions	lb/hr	ton/yr
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Total VOC Emissions	0.31	1.35
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Total HAP Emissions	0.24	1.05
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Controlled Regenerator Emissions	lb/hr	ton/yr
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Total VOC Emissions	0.22	0.95
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Total HAP Emissions	0.17	0.74
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TEG Regenerator Vent (PK-102)

The following emission summary has been estimated using the GRI-GLYCalc program.
For the detailed input parameters, refer to the Permit Application.

Regenerator Vent

Glycol Type: TEG
Annual Hours of Operation: 8760
Dry Gas Flow Rate: 12.00 MMScf/day (maximum)
Control Device: Underground storage tank
Control Efficiency: 30%
Flash Separator: N/A
Stripping Gas: 42,000 Scf/day Dry Product Gas

Uncontrolled Regenerator Emissions	lb/hr	ton/yr
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Total VOC Emissions	0.31	1.35
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Total HAP Emissions	0.24	1.05
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Controlled Regenerator Emissions	lb/hr	ton/yr
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Total VOC Emissions	0.22	0.95
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Total HAP Emissions	0.17	0.74
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Dehydrator Reboiler (PK-100) 350,000 Btu/hr (Information from company)

Fuel Consumption: $350,000 \text{ Btu/hr} * 0.0012 \text{ Scf/Btu} * 8760 \text{ hr/yr} = 3.5872 \text{ MMScf/yr}$

PM₁₀ Emissions

Emission Factor: 7.60 lb/MMScf (AP-42, 1.4-2, 7/98)

Fuel Consumption: 3.587 MMScf/yr

Calculations: $7.60 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.01 \text{ ton/yr}$

NO_x Emissions

Emission Factor: 94.00 lb/MMScf (AP-42, 1.4-1, 7/98)

Fuel Consumption: 3.587 MMScf/yr
Calculations: $94.00 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.17 \text{ ton/yr}$

VOC Emissions

Emission Factor: 5.50 lb/MMScf (AP-42, 1.4-2, 7/98)
Fuel Consumption: 3.587 MMScf/yr
Calculations: $5.50 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.01 \text{ ton/yr}$

CO Emissions

Emission Factor: 40.00 lb/MMScf (AP-42, 1.4-1, 7/98)
Fuel Consumption: 3.587 MMScf/yr
Calculations: $40.00 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.07 \text{ ton/yr}$

SO_x Emissions

Emission Factor: 0.60 lb/MMScf (AP-42, 1.4-2, 7/98)
Fuel Consumption: 3.587 MMScf/yr
Calculations: $0.60 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.00 \text{ ton/yr}$

Dehydrator Reboiler (PK-101) 350000 Btu/hr (Information from company)

Fuel Consumption: $350,000 \text{ Btu/hr} * 0.0012 \text{ Scf/Btu} * 8760 \text{ hr/yr} = 3.5872 \text{ MMScf/yr}$

PM₁₀ Emissions

Emission Factor: 7.60 lb/MMScf (AP-42, 1.4-2, 7/98)
Fuel Consumption: 3.587 MMScf/yr
Calculations: $7.60 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.01 \text{ ton/yr}$

NO_x Emissions

Emission Factor: 94.00 lb/MMScf (AP-42, 1.4-1, 7/98)
Fuel Consumption: 3.587 MMScf/yr
Calculations: $94.00 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.17 \text{ ton/yr}$

VOC Emissions

Emission Factor: 5.50 lb/MMScf (AP-42, 1.4-2, 7/98)
Fuel Consumption: 3.587 MMScf/yr
Calculations: $5.50 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.01 \text{ ton/yr}$

CO Emissions

Emission Factor: 40.00 lb/MMScf (AP-42, 1.4-1, 7/98)
Fuel Consumption: 3.587 MMScf/yr
Calculations: $40.00 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.07 \text{ ton/yr}$

SO_x Emissions

Emission Factor: 0.60 lb/MMScf (AP-42, 1.4-2, 7/98)
Fuel Consumption: 3.587 MMScf/yr
Calculations: $0.60 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.00 \text{ ton/yr}$

Dehydrator Reboiler (PK-102) 350,000 Btu/hr (Information from company)

Fuel Consumption: $350,000 \text{ Btu/hr} * 0.0012 \text{ Scf/Btu} * 8760 \text{ hr/yr} = 3.5872 \text{ MMScf/yr}$

PM₁₀ Emissions

Emission Factor: 7.60 lb/MMScf (AP-42, 1.4-2, 7/98)
Fuel Consumption: 3.587 MMScf/yr
Calculations: $7.60 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.01 \text{ ton/yr}$

NO_x Emissions

Emission Factor: 94.00 lb/MMScf (AP-42, 1.4-1, 7/98)
Fuel Consumption: 3.587 MMScf/yr
Calculations: $94.00 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.17 \text{ ton/yr}$

VOC Emissions

Emission Factor: 5.50 lb/MMScf (AP-42, 1.4-2, 7/98)
Fuel Consumption: 3.587 MMScf/yr
Calculations: $5.50 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.01 \text{ ton/yr}$

CO Emissions

Emission Factor: 40.00 lb/MMScf (AP-42, 1.4-1, 7/98)
 Fuel Consumption: 3.587 MMscf/yr
 Calculations: $40.00 \text{ lb/MMScf} * 3.587 \text{ MMscf/yr} * 0.0005 \text{ ton/lb} = 0.07 \text{ ton/yr}$

SO_x Emissions

Emission Factor: 0.60 lb/MMScf (AP-42, 1.4-2, 7/98)
 Fuel Consumption: 3.587 MMScf/yr
 Calculations: $0.60 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.00 \text{ ton/yr}$

Space Heating Boiler (PK-60) 350000 Btu/hr (Information from company)

Fuel Consumption: $350,000 \text{ Btu/hr} * 0.0012 \text{ Scf/Btu} * 8760 \text{ hr/yr} = 3.5872 \text{ MMScf/yr}$

PM₁₀ Emissions

Emission Factor: 7.60 lb/MMScf (AP-42, 1.4-2, 7/98)
 Fuel Consumption: 3.587 MMScf/yr
 Calculations: $7.60 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.01 \text{ ton/yr}$

NO_x Emissions

Emission Factor: 94.00 lb/MMScf (AP-42, 1.4-1, 7/98)
 Fuel Consumption: 3.587 MMScf/yr
 Calculations: $94.00 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.17 \text{ ton/yr}$

VOC Emissions

Emission Factor: 5.50 lb/MMScf (AP-42, 1.4-2, 7/98)
 Fuel Consumption: 3.587 MMScf/yr
 Calculations: $5.50 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.01 \text{ ton/yr}$

CO Emissions

Emission Factor: 40.00 lb/MMScf (AP-42, 1.4-1, 7/98)
 Fuel Consumption: 3.587 MMscf/yr
 Calculations: $40.00 \text{ lb/MMScf} * 3.587 \text{ MMscf/yr} * 0.0005 \text{ ton/lb} = 0.07 \text{ ton/yr}$

SO_x Emissions

Emission Factor: 0.60 lb/MMScf (AP-42, 1.4-2, 7/98)
 Fuel Consumption: 3.587 MMScf/yr
 Calculations: $0.60 \text{ lb/MMScf} * 3.587 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.00 \text{ ton/yr}$

Emergency Electrical Generator (PK-70)

Brake Horsepower: 126 hp @ 1800 rpm
 Hours of operation: 2000 hr/yr

PM₁₀ Emissions

Emission Factor: 0.0022 lb/bhp-hr (AP-42, 3.3-1, 10/96)
 Calculations: $0.0022 \text{ lb/bhp-hr} * 126 \text{ hp} = 0.277 \text{ lb/hr}$
 $0.277 \text{ lb/hr} * 2000 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.28 \text{ ton/yr}$

NO_x Emissions

Emission factor: 13.95 gram/bhp-hr (BACT Determination)
 Calculations: $13.95 \text{ gram/bhp-hr} * 126 \text{ bhp} * 0.002205 \text{ lb/gram} = 3.88 \text{ lb/hr}$
 $3.88 \text{ lb/hr} * 2000 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 3.88 \text{ ton/yr}$

VOC Emissions

Emission factor: 0.16 gram/bhp-hr (BACT Determination)
 Calculations: $0.16 \text{ gram/bhp-hr} * 126 \text{ bhp} * 0.002205 \text{ lb/gram} = 0.04 \text{ lb/hr}$
 $0.04 \text{ lb/hr} * 2000 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.04 \text{ ton/yr}$

CO Emissions

Emission factor: 0.75 gram/bhp-hr (BACT Determination)
 Calculations: $0.75 \text{ gram/bhp-hr} * 126 \text{ bhp} * 0.002205 \text{ lb/gram} = 0.21 \text{ lb/hr}$

$$0.21 \text{ lb/hr} * 2000 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.21 \text{ ton/yr}$$

SO_x Emissions

Emission Factor: 0.00205 lb/bhp-hr (AP-42, 3.3-1, 10/96)
 Calculations: 0.00205 lb/bhp-hr * 126 hp = 0.258 lb/hr
 0.258 lb/hr * 2000 hr/yr * 0.0005 ton/lb = 0.26 ton/yr

V. Existing Air Quality

Omimex's Bowdoin Compressor Station is located in the SW¹/₄ of the SE¹/₄ of Section 35, Township 35 North, Range 31 East, in Phillips County, Montana. Phillips County is unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants.

VI. Ambient Air Impact Analysis

The Department determined (based upon site location, emissions inventory calculations, Department modeling thresholds, and historical modeling analysis) that any air impacts from adding the new compressor engine to Omimex's Bowdoin Compressor Station will be minor. The Department believes the proposed project will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

VIII. Environmental Assessment

An Environmental Assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Omimex Canada, Ltd.
Bowdoin Compressor Station
65 East Broadway, Suite 401
Butte, MT 59701

Air Quality Permit number: 2922-07

Preliminary Determination Issued: 11/16/05

Department Decision Issued: 12/02/05

Permit Final: 12/20/05

1. *Legal Description of Site:* The Bowdoin Compressor Station is located in the SW¼ of the SE¼ of Section 35, Township 35 North, Range 31 East, in Phillips County, Montana.
2. *Description of Project:* Omimex proposes to add a 1,050-Hp natural gas rich-burn compressor engine, with an NSCR unit and AFR controller for pollution control, at the Bowdoin Compressor Station.
3. *Objectives of Project:* The proposed project would result in increased business and revenue for Omimex by allowing Omimex to process and transmit greater quantities of natural gas.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the “no-action” alternative. The “no-action” alternative would deny issuance of the Montana Air Quality Permit to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because Omimex demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the “no-action” alternative was eliminated from further consideration.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be included in Permit #2922-07.
6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			X			Yes
B	Water Quality, Quantity, and Distribution			X			Yes
C	Geology and Soil Quality, Stability, and Moisture			X			Yes
D	Vegetation Cover, Quantity, and Quality			X			Yes
E	Aesthetics			X			Yes
F	Air Quality			X			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources				X		Yes
H	Demands on Environmental Resource of Water, Air, and Energy			X			Yes
I	Historical and Archaeological Sites			X			Yes
J	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS:
The Department has prepared the following comments:

A. Terrestrial and Aquatic Life and Habitats

Minor impacts on terrestrial or aquatic life and habitats would be expected from the proposed project because deer, antelope, coyotes, geese, ducks, and other terrestrials would potentially use the area around the facility and because air emissions from the facility would increase. While air emissions would increase and corresponding deposition of pollutants would occur, the proposed project would only increase the facility’s potential to emit by a relatively small amount. Because potential emissions calculated from the new facility fall below current modeling thresholds and modeling was previously conducted for the facility to demonstrate minimal facility air quality impacts, the Bowdoin Compressor Station is not expected to cause or contribute to a violation of any ambient standard. The ambient standards are designed to be protective of human health, as well as the environment. In addition, minor land disturbance would result from installing the compressor engine. However, any impacts from installing the compressor engine would be minor due to the relatively small size of the project. Overall, any impacts to terrestrial and aquatic life and habitats would be minor.

B. Water Quality, Quantity, and Distribution

Minor impacts would be expected on water quality, quantity, and distribution from the proposed project because air emissions from the facility would increase and corresponding deposition of pollutants would occur. The nearest surface water near the facility is Whitewater Creek, which is located approximately ¼ mile East of the facility. While air emissions from the facility would increase and corresponding deposition of pollutants would occur, the proposed project would only increase the facility’s potential to emit by a relatively small amount. As described in Section 7.F. of this EA, ambient air quality emissions would not exceed any current ambient standard. The ambient standards are designed to be protective of human health, as well as the environment.

Water quality, quantity, and distribution would not be impacted from installing the compressor engine because there is no surface water at, or relatively close to, the site. Furthermore, no discharges into surface water would occur and no use of surface water would be expected for installation of the compressor engine. Therefore, no impacts to water quality, quantity, and distribution would be expected from installation of the equipment. Overall, any impacts to water quality, quantity, and distribution from the proposed project would be minor.

C. Geology and Soil Quality, Stability, and Moisture

Minor impacts would occur on the geology and soil quality, stability, and moisture from the proposed project because minor land disturbances would be required to install the compressor engine. In addition, no discharges, other than air emissions, would occur at the facility. Any impacts to the geology and soil quality, stability, and moisture from installing the compressor engine would be minor due to the relatively small size of the project.

While air emissions from the facility would increase and corresponding deposition of pollutants would occur, the proposed project would only increase the facility's potential to emit by a relatively small amount. As described in Section 7.F. of this EA, ambient air quality emissions from the Bowdoin Compressor Station will not cause or contribute to a violation of any current ambient standard. The ambient standards are designed to be protective of human health, as well as the environment. Overall, any impacts to the geology and soil quality, stability, and moisture would be minor.

D. Vegetation Cover, Quantity, and Quality

Minor impacts would result on vegetation cover, quantity, and quality because minor land disturbance would be required to install the compressor engine. Also, any impacts to the vegetation cover, quantity, and quality from installing the compressor engine would be minor due to the relatively small size of the project.

While air emissions from the facility would increase and corresponding deposition of pollutants would occur, the proposed project would only increase the facility's potential to emit by a relatively small amount. As described in Section 7.F. of this EA, ambient air quality emissions from the Bowdoin Compressor Station would not cause or contribute to a violation of any current ambient standard. The ambient standards are designed to be protective of human health, as well as the environment. Overall, any impacts to vegetation cover, quantity, and quality would be minor.

E. Aesthetics

The proposed project would have only minor impacts on the aesthetics of the area because the Bowdoin Compressor Station is an existing compressor station. Any visual impacts would be minor because the facility already contains several compressor engines and dehydration units. Therefore, the addition of a new compressor engine would be consistent with the visual aesthetics of the site. Any noise impacts would be minor because the addition of the proposed compressor engine would not be expected to significantly change the noise level currently existing at the facility.

F. Air Quality

The air quality of the area would realize minor impacts from the proposed project because air emissions from the Bowdoin Compressor Station would increase. Air emissions from the facility would include PM₁₀; NO_x; CO; VOC; and SO_x. Air emissions from the facility would be minimized by limitations and conditions that would be included in Permit #2922-07. Conditions would include, but are not limited to, BACT emissions limits and opacity limitations on the proposed engines and the general facility.

In addition, based on previous analysis of sources of this type operating under similar conditions, the Department believes that the emissions resulting from the proposed engines would exhibit good dispersion characteristics resulting in relatively low deposition impacts. While deposition of pollutants would occur as a result of operating the facility, the Department determined that the impacts from deposition of pollutants would be minor due to dispersion characteristics of pollutants (example - stack height, stack temperature, etc.), the atmosphere (example -wind speed, wind direction, ambient temperature, etc.), and conditions that would be placed in Permit #2922-07. Only small concentrations of air pollutants would accumulate upon any given area and deposition of air pollutants would be minor.

Since controlled emissions from the proposed station would exhibit good dispersion characteristics and would not exceed any ambient air quality thresholds, the Department determined that controlled emissions from the source will not cause or contribute to a violation of any ambient air quality standard. Therefore, any impacts to air quality from the proposed facility would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

In an effort to identify any unique endangered, fragile, or limited environmental resources in the area, the Department researched its files for the Bowdoin Compressor Station. In 1998, the Department requested information from the Montana Natural Heritage Program, Natural Resource Information System (NRIS) regarding any unique endangered, fragile, or limited environmental resources in the area. The NRIS search identified the Common Tern as a species of special concern in the general area of the proposed facility. In this case, the area was defined by the section, township, and range of the proposed location with an additional 1-mile buffer zone. Due to the minor amounts of land disturbance that would be required, the fact that the Bowdoin Compressor Station is an existing compressor station, and because of the relatively low levels of pollutants that would be emitted, the Department determined that it would be unlikely that the proposed project would impact any species of special concern.

H. Demands on Environmental Resource of Water, Air and Energy

The proposed project would have minor impacts on the demands for the environmental resources of air and water because air emissions from the facility would increase and corresponding deposition of pollutants would occur. Deposition of pollutants would occur as a result of operating the facility; however, as explained in Section 7.F of this EA, the proposed project would only increase the facility's potential to emit by a relatively small amount and will not cause or contribute to a violation of any ambient standard. The ambient standards are designed to be protective of human health, as well as the environment.

The proposed project would not be expected to have minimal impacts on the demand for the environmental resource of energy because the new equipment would only use a small portion of the energy needed to operate the facility. Overall, the impacts for the demands on the environmental resources of water, air, and energy would be minor.

I. Historical and Archaeological Sites

The Bowdoin Compressor Station is an existing compressor station located within a fenced property line and any ground disturbance would be minor. According to past correspondence from the Montana Historical Society, State Historic Preservation Society (SHPO), there is low likelihood of adverse disturbance to any known archaeological or historic site, given previous industrial disturbance within the area. Therefore, the Department determined that the chance of the proposed project impacting any historical or archaeological sites would be minor.

J. Cumulative and Secondary Impacts

Overall, the cumulative and secondary impacts on the physical and biological aspects of the human environment in the immediate area would be minor due to the relatively small size of the project. Only small amounts of land would be disturbed to complete the project and only relatively small amounts of air pollutants would be emitted. In addition, the facility is an existing compressor station and the project would result in a relatively small increase in emissions. The Department believes that this facility could be expected to continue to operate in compliance with all applicable rules and regulations as would be outlined in Permit #2922-07.

8. The following table summarizes the potential economic and social effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores				X		Yes
B	Cultural Uniqueness and Diversity				X		Yes
C	Local and State Tax Base and Tax Revenue				X		Yes
D	Agricultural or Industrial Production				X		Yes
E	Human Health			X			Yes
F	Access to and Quality of Recreational and Wilderness Activities				X		Yes
G	Quantity and Distribution of Employment				X		Yes
H	Distribution of Population				X		Yes
I	Demands for Government Services			X			Yes
J	Industrial and Commercial Activity			X			Yes
K	Locally Adopted Environmental Plans and Goals				X		Yes
L	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS:
The Department has prepared the following comments:

A. Social Structures and Mores

The proposed project would not have any impacts on native or traditional lifestyles or communities (social structures or mores) in the area because the proposed project would take place at an existing compressor station located in a relatively remote location.

B. Cultural Uniqueness and Diversity

The proposed project would not have any impacts to the cultural uniqueness and diversity of the area because the proposed project would take place at an existing compressor station located in a relatively remote location.

C. Local and State Tax Base and Tax Revenue

The proposed project would not have any impacts to the local and state tax base and tax revenue because no new employees would be expected to be hired as a result of installing and/or operating the new compressor engine.

D. Agricultural or Industrial Production

The land surrounding the facility is rural grassland. Agricultural or industrial production in the area would not be expected to be impacted because the facility is an existing, relatively small compressor station and the proposed project would simply increase the production capacity of the facility.

E. Human Health

The proposed project would result in only minor, if any, impacts on human health. As explained in Section 7.F of this EA, the proposed project would only increase the facility's potential to emit by a relatively small amount and the Bowdoin Compressor Station will not cause, or contribute to, a violation of any current ambient standard. The Department believes that the proposed project would comply with all applicable air quality rules, regulations, and standards. These rules, regulations, and standards are designed to be protective of human health.

F. Access to and Quality of Recreational and Wilderness Activities

The proposed project would not have any impacts on access to and quality of recreational and wilderness activities because the facility is an existing compressor station located in a relatively remote location. The proposed project consists of adding a compressor engine to the existing facility. Any increase in noise from the facility would not be expected to be significantly noticeable.

G. Quantity and Distribution of Employment

The proposed project would not have any impacts on the quantity and distribution of employment because no new employees would be hired as a result of installing and/or operating the compressor engine.

H. Distribution of Population

The proposed project would not have any impacts on the distribution of population in the area because the facility is an existing compressor station located in a relatively remote location and the proposed project would not create any new jobs.

I. Demands for Government Services

There would be minor impacts on the demands for government services because additional time would be required by government agencies to issue Permit #2922-07. Ensuring compliance with applicable rules, standards, and Permit #2922-07 would require minor amounts of additional time beyond what is currently done. Overall, any demands for government services to regulate the facility would be minor due to the relatively small size of the facility and the proposed project.

J. Industrial and Commercial Activity

Minor impacts would be expected on the local industrial and commercial activity because the proposed project would only represent a small increase the industrial activity in the area. The commercial activity in the area would be expected to remain the same. The proposed project would be relatively small and would take place at a relatively remote location and would consist of adding a compressor engine to the existing facility. Overall, any impacts to the industrial and commercial activity in the area would be minor.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals that would be affected by issuing Permit #2922-07. The state standards would protect the proposed site and the environment surrounding the site.

L. Cumulative and Secondary Impacts

Overall, the social and economic cumulative and secondary impacts from this project would be minor because the proposed project would take place at an existing facility and overall emissions from the facility would increase by a relatively small amount. New businesses would not be drawn to the area and jobs would not be created or lost due to the proposed project. Because no new employees would be hired for the proposed project, there would be no economic impacts from new employees.

Recommendation: No EIS is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permit action is for the addition of one compressor engine (1,050-Hp) with an NSCR catalyst for pollution control. Permit #2922-07 would include conditions and limitations to ensure the facility would operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with the proposed project.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program.

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program.

EA prepared by: Ron Lowney

Date: November 8, 2005